

In the Claims

Please replace all prior versions, and listings, of claims in the application with the following list of claims:

1. (Previously Presented) A method for treating a subject having a B-cell malignancy, wherein cells of the malignancy upregulate expression of an antigen in response to immunostimulatory CpG oligonucleotide, the method comprising:
 - administering to the subject an immunostimulatory CpG oligonucleotide between 6 and 100 nucleotides long comprising a backbone modification and at least the formula 5' X₁X₂CGX₃X₄ 3', wherein C is unmethylated and wherein X₁, X₂, X₃, and X₄ are nucleotides, in an effective amount to upregulate expression of the antigen by the cells; and
 - administering to the subject an antibody specific for the upregulated antigen, in an effective amount to treat the subject.
- 2-6. (Canceled)
7. (Previously Presented) The method of claim 1, wherein the B-cell malignancy is a B-cell lymphoma, the antigen is CD20, and the antibody is an anti-CD20 antibody.
8. (Original) The method of claim 7, wherein the B-cell lymphoma is B-cell chronic lymphocytic leukemia (B-CLL).
9. (Original) The method of claim 7, wherein the B-cell lymphoma is a marginal zone lymphoma.
10. (Canceled)
11. (Previously Presented) The method of claim 7, wherein the anti-CD20 antibody is Rituximab.

12-13. (Canceled)

14. (Previously Presented) The method of claim 1, wherein the modified backbone is a phosphate backbone modification.

15. (Previously Presented) The method of claim 1, wherein the modified backbone is an amino acid backbone.

16. (Canceled)

17. (Previously Presented) The method of claim 1, wherein the immunostimulatory CpG oligonucleotide is 8 to 40 nucleotides in length.

18. (Previously Presented) The method of claim 1, wherein the immunostimulatory CpG oligonucleotide is isolated.

19. (Previously Presented) The method of claim 1, wherein the immunostimulatory CpG oligonucleotide is a synthetic nucleic acid.

20. (Previously Presented) The method of claim 7, wherein the immunostimulatory CpG oligonucleotide and the anti-CD20 antibody are administered together.

21. (Previously Presented) The method of claim 7, wherein the immunostimulatory CpG oligonucleotide and the anti-CD20 antibody are administered separately.

22-23. (Canceled)

24. (Previously Presented) A method for treating a subject having a marginal zone lymphoma or B-cell chronic lymphocytic leukemia, wherein cells of the lymphoma or leukemia upregulate

expression of an antigen in response to immunostimulatory CpG oligonucleotide, the method comprising:

administering to the subject an immunostimulatory CpG oligonucleotide between 6 and 100 nucleotides long comprising a backbone modification and at least the formula 5' X₁X₂CGX₃X₄ 3', wherein C is unmethylated and wherein X₁, X₂, X₃, and X₄ are nucleotides, in an effective amount to upregulate expression of the antigen by the cells of the lymphoma or leukemia; and

administering to the subject an antibody specific for the upregulated antigen, in an effective amount to treat the subject.

25-33. (Canceled)

34. (Previously Presented) A method for treating a subject having a B-cell malignancy, wherein cells of the malignancy upregulate expression of a surface antigen in response to immunostimulatory CpG oligonucleotide, the method comprising:

isolating malignant B cells from the subject;

identifying a surface antigen, the expression of which can be upregulated in response to immunostimulatory CpG oligonucleotide, wherein the surface antigen is expressed by the malignant B cells in an amount lower than that of normal B cells;

administering to the subject an immunostimulatory CpG oligonucleotide between 6 and 100 nucleotides long comprising a backbone modification and at least the formula 5' X₁X₂CGX₃X₄ 3', wherein C is unmethylated and wherein X₁, X₂, X₃, and X₄ are nucleotides, in an effective amount to upregulate expression of the surface antigen by the cells; and

administering to the subject an antibody specific for the upregulated surface antigen, in an amount effective to treat the subject.

35-42. (Canceled)

43. (Previously Presented) A method for treating a subject having a B-cell malignancy resistant to therapy with an antibody specific for a surface antigen, wherein cells of the

malignancy upregulate expression of the surface antigen in response to immunostimulatory CpG oligonucleotide, the method comprising:

administering to the subject an immunostimulatory CpG oligonucleotide between 6 and 100 nucleotides long comprising a backbone modification and at least the formula 5' X₁X₂CGX₃X₄ 3', wherein C is unmethylated and wherein X₁, X₂, X₃, and X₄ are nucleotides, in an effective amount to upregulate expression of the surface antigen by the cells; and

administering to the subject an antibody specific for the upregulated surface antigen, in an effective amount to treat the subject.

44-55. (Canceled)

56. (Previously Presented) A method for treating cancer in a human, the method comprising:

administering to a human having a cancer, wherein cells of the cancer upregulate expression of a surface antigen in response to immunostimulatory CpG oligonucleotide, with an immunostimulatory CpG oligonucleotide between 6 and 100 nucleotides long, said nucleic acid comprising at least the formula 5' X₁X₂CGX₃X₄ 3', wherein C is unmethylated and wherein X₁, X₂, X₃, and X₄ are nucleotides, in an effective amount to upregulate expression of the surface antigen by the cancer; and

administering to the human a human or humanized antibody of IgG1 isotype, which antibody binds to the cell surface antigen, in an effective amount for killing the cells expressing the upregulated cell surface antigen.

57-77. (Canceled)

78. (Previously Presented) The method of claim 34, wherein the surface antigen is CD19.

79. (Previously Presented) The method of claim 34, wherein surface antigen is CD20.

80. (Previously Presented) The method of claim 34, wherein surface antigen is CD22.

81. (Previously Presented) The method of claim 34, wherein the B-cell malignancy is B-CLL.
82. (Previously Presented) The method of claim 34, wherein the B-cell malignancy is marginal zone lymphoma.
83. (Previously Presented) The method of claim 43, wherein the surface antigen is CD19.
84. (Previously Presented) The method of claim 43, wherein the surface antigen is CD20.
85. (Previously Presented) The method of claim 84, wherein the antibody is Rituximab.
86. (Previously Presented) The method of claim 43, wherein the surface antigen is CD22.
87. (Previously Presented) The method of claim 43, wherein the B-cell malignancy is a marginal zone lymphoma.
88. (Previously Presented) The method of claim 43, wherein the B-cell malignancy is B-cell chronic lymphocytic leukemia.
89. (Previously Presented) The method of claim 43, wherein the modified backbone is a phosphate backbone modification.
90. (Previously Presented) The method of claim 43, wherein the immunostimulatory CpG oligonucleotide is 8 to 40 nucleotides in length.
91. (Previously Presented) The method of claim 43, wherein the immunostimulatory CpG oligonucleotide is a synthetic nucleic acid.

92. (Previously Presented) The method of claim 43, wherein the immunostimulatory CpG oligonucleotide is ODN 2006 (SEQ ID NO:729).

93. (Previously Presented) The method of claim 1, wherein the immunostimulatory CpG oligonucleotide is ODN 2006 (SEQ ID NO:729).

94. (Previously Presented) The method of claim 24, wherein the antigen is CD19.

95. (Previously Presented) The method of claim 24, wherein the antigen is CD22.

96. (Previously Presented) The method of claim 24, wherein the modified backbone is a phosphate backbone modification.

97. (Previously Presented) The method of claim 24, wherein the immunostimulatory CpG oligonucleotide is 8 to 40 nucleotides in length.

98. (Previously Presented) The method of claim 24, wherein the immunostimulatory CpG oligonucleotide is a synthetic nucleic acid.

99. (Previously Presented) The method of claim 24, wherein the immunostimulatory CpG oligonucleotide is ODN 2006 (SEQ ID NO:729).

100. (Previously Presented) The method of claim 34, wherein the surface antigen is not expressed on the malignant B cells.

101. (Previously Presented) The method of claim 34, wherein the modified backbone is a phosphate backbone modification.

102. (Previously Presented) The method of claim 34, wherein the immunostimulatory CpG oligonucleotide is 8 to 40 nucleotides in length.

103. (Previously Presented) The method of claim 34, wherein the immunostimulatory CpG oligonucleotide is a synthetic nucleic acid.

104. (Previously Presented) The method of claim 34, wherein the immunostimulatory CpG oligonucleotide is ODN 2006 (SEQ ID NO:729).